DOCUMENT RESUME

ED 144 096 CS 203 624

TITLE	Literacy and World Population. Population Bulletin No. 2, Vol. 30.
INSTITUTION	Population Reference Bureau, Inc., Washington, D.C.g
PUB DATE	[76]
NOTE	31p.; A publication of the Population Reference Bureau, Inc.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	*Demography; Developing Nations; Economic Development; *Family Planning; *Foreign Countries; *International Studies; *Literacy; Literacy Education; *Population Trends; World Problems
IDENTIFIERS	Thailand

ABSTRACT

This bulletin examines aspects of world literacy with regard to population projects and family planning. Discussion includes the presentation of perspectives, definitions, and statistics concerning literacy. The role of literacy in economic development is examined; specific topics include adult and school-age illiteracy, rural and urban illiteracy, the status of women, financing literacy and family planning programs, and difficulties encountered by literacy programs. Approaches to literacy are discussed as they relate to the facilitation of literacy, economic factors, literacy campaigns and mass education, non-literacy-based education, sociopolitical emancipation, and functional education. Implications for family planning are delineated, and a case study involving a national population project in Thailand is described. Several tables of statistics are provided. (KS)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED144096

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Population Bulletin

Literacy And World Population

A publication of the
Population Reference Bureau, Inc. Vol.30, No.2
1755 Massachusetts Avenue, N.W.
Washington, D.C. 20036
(202) 232-2288
Regional Office: Calle 79 No.8-57
Bogota, D.C. Columbia (Cable address: POPREF)

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Population Reference

Bureau, Inc.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Contents of this Bulletin may be reprinted freely provided the quotation is accurate and the source is acknowledged.

CS203624

JUL 22 1977

Literacy and World Population

	Page
Literacy perspective	3
Literacy definitions and statistics	4
Literacy and economic development	5
Adult and school-age illiteracy	6
Rural-urban illiteracy	8
Status of women	8
Literacy, innovation, and modernization	11
Financing literacy and family planning programs	12
Difficulties encountered by literacy programs	13
Some approaches to literacy	16
Facilitating literacy acquisition	17
Economic focus	17
Literacy campaigns and mass education	18
Use of mass media	19
Nonliteracy-based education	20
Sociopolitical emancipation	20
Functional education: an integrated approach	21
Summing up	22
Implications for family planning education	22
Agreements and realities	23
A Case Study: Thailand	24
National population project	24
Literacy trends in Thailand	24
The Functional Literacy and Family Life Planning Project	26
Coordinating literacy and population projects	27

Figures

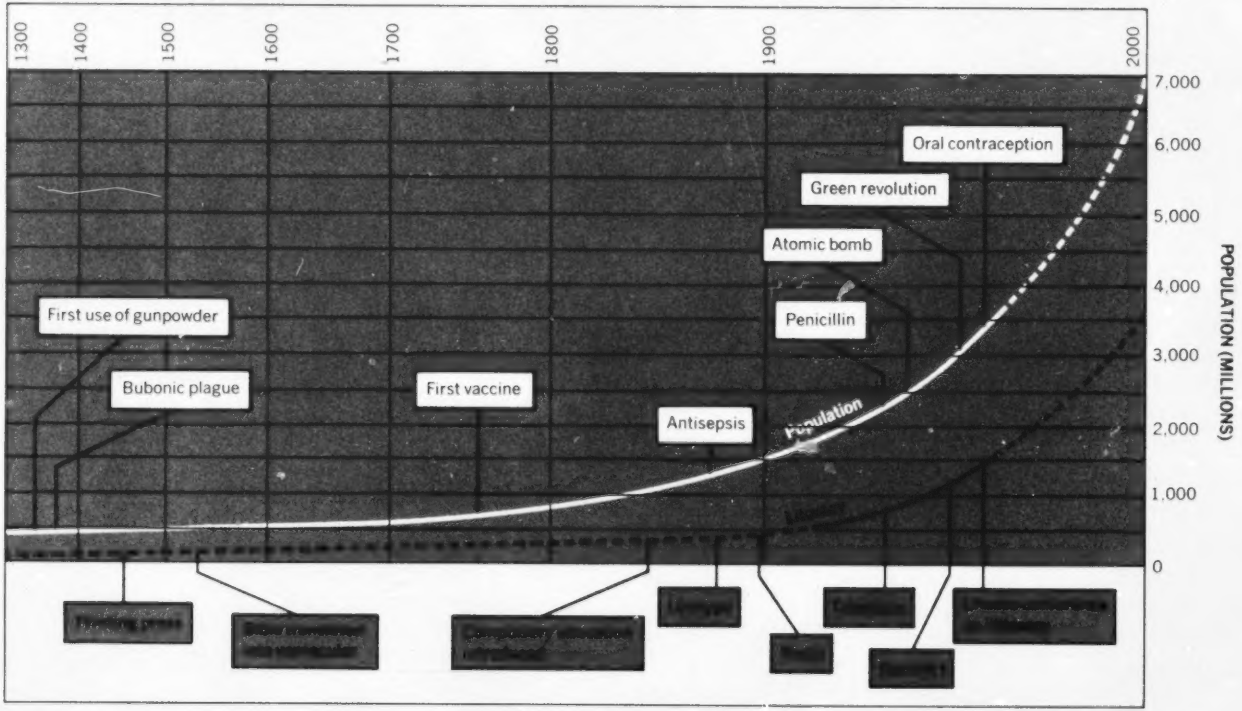
1.	Some Major Landmarks in 700 Years of World Literacy and Population Growth	2
2.	Male and Female Adult Illiteracy Rates Around 1970	9
3.	World Population Growth and Illiteracy Patterns	14
4.	World Adult Population (15+) and Literacy Rates with Projections	25

Tables

1.	Knowledge of Family Planning by Literacy Status	6
2.	Approval of Family Planning by Literacy Status	6
3.	World Adult Illiteracy by Year, in millions	7
4.	World Adult Illiteracy by Region, 1970, in millions	7
5.	Projections of School Enrollments in Developing Countries, in millions	8
6.	Urban and Rural Population and Illiteracy in Selected Countries	10
7.	World Male and Female Adult Literacy, 1960 and 1970, in millions	11
8.	Female Enrollment as a Percentage of Total Primary and Secondary School Enrollments, in 1960 and 1970	11
9.	Percentage of Gross National Product Spent on Public Education, 1960 and 1965-68	12
10.	Number of Radios in Selected Regions	19
11.	Expansion Plan of Thailand's Functional Literacy and Family Life Planning Project	27

Footnotes 28

Figure 1. **Some Major Landmarks in 700 Years of World Literacy and Population Growth**



Sources: Johns Hopkins Press, *Rapid Population Growth: Consequences and Policy Implications*, (Baltimore, 1971); Unesco, *Statistical Yearbook*, (Paris, 1973); Unesco, *Learning To Be*, (Paris, 1972); World Education estimates.

The time axis is calibrated according to a logarithmic formula which allows the space for each century to become progressively larger as it approaches the present. Source: Time-Life Books, *What Man Has Built*, New York: 1965.

Chart by World Education / John Keith

Literacy And World Population

• The percentage of the world's population that is illiterate decreased from 44 to 34 percent in the years between 1950 and 1970, but the number of illiterate adults rose—from about 700 million to 783 million. This was due chiefly to population growth outrunning educational budgets and personnel in developing countries.

• A clearcut inverse relationship exists between education, particularly the education of the woman, and completed family size. Yet both the percentage and the numbers of illiterate women are rising. In 1960, 58 percent of illiterate adults were women; by 1970 the figure had risen to 60 percent. The number of illiterate women rose by 40 million.

• Increasingly, evidence suggests that some groups of illiterate people are becoming aware that unchecked population growth is a problem, understand that it is possible to alter fertility behavior, and even express a desire to limit the size of their families; but only a small minority of them are practicing any form of contraception. New methods of bringing them information on family planning should be considered.

This *Bulletin* was prepared by the staff and consultants of *World Education*, New York, which assists literacy and other nonformal educational programs to develop integrated curricula, innovative teaching methods, and materials that incorporate the subjects of family planning, food production, nutrition, and health. It has carried on some 30 different projects in 17 countries.

Literacy Perspective

For centuries, literacy was primarily an elitist and urban experience, and governmental concern for mass illiteracy is a 20th century phenomenon (see Fig. 1). Among illiterate villagers, folklore, history, technical knowledge, and religion were traditionally passed on by word of mouth. The nonformal learning could be highly complex, involving sophisticated inter- and intrafamilial, village, and clan relationships and highly developed interpersonal skills.

Those who have worked closely with illiterate people—persons as disparate as Tolstoy and Frank Laubach, Welthy Fisher and Paulo Freire—remind us that the illiterate person is neither ignorant nor stupid.

As written languages developed at different times and places, however, literacy and formal schooling tended to be reserved for a small elite—usually a religious elite. General literacy grew only very slowly, speeded in the West by the Protestant Reformation and its insistence on the need for all the people to read sacred scriptures. New and increasingly faster means of reproducing the printed page made mass literacy more possible; modernization, urbanization, and the tremendous development in scientific knowledge in the past century have made it more necessary; and the aspirations of the peoples of the new nations have made it a political imperative.

In recent decades many developing nations, recognizing the threat of unchecked population growth to their development plans, have adopted population policies and in many instances initiated and supported family planning programs. For much the same reasons, and challenged by the urgency of incorporating their people into the development process, they have turned greater attention to the eradication, or at least the lessening, of illiteracy.

In the 1950's, literacy programs were justified mostly in terms of the "right to education." But in the 1960's, mass literacy came to be generally accepted as an important aid for development—by which was meant increased gross national product (GNP) and per capita income. Development programs required large-scale public understanding and participation.

In 1965, the World Conference of Ministers of Education on the Eradication of Illiteracy met in Teheran, Iran. The Conference recommended that traditional literacy campaigns be replaced by functional, job-oriented literacy programs, and in a number of countries experimental Unesco programs were initiated.

By 1971, there was increasing acceptance of this approach. Replies to a questionnaire sent by Unesco to its members indicated clearly that literacy and adult education were widely regarded as integral parts of social and economic development. Roughly half the countries acknowledging a literacy problem took this view and included literacy in their national development plans.

In the mid-1970's, the focus is again changing, and literacy programs are increasingly seen as a means to help people cope with their environment and improve the quality of their lives. For example, they may utilize family planning, nutrition, health, or agricultural information as literacy education materials; these relate directly to the daily lives of the literacy trainees.

Literacy Definitions And Statistics

The *American Heritage Dictionary* defines "illiterate" as: "1. Unable to read and write. 2. Marked by inferiority to an expected standard of familiarity with language. . . ."

The complexities hinted at in that definition are many: Who establishes the "expected standard?" What tools are used to measure achievement of that standard? How are the data about the achievement gathered, interpreted, and disseminated? Although literacy is always concerned with reading and writing, and usually also with computational skills, the "expected standard" varies enormously from culture to culture, from country to country, from program to program.

Traditionally, for census-taking purposes, the ability to read and write one's name was the minimal standard of literacy; in many countries this is still true although so rudimentary a level of literacy is obviously of little value either to the "literate" person or his community.

The United Nations, in its first attempt to define a threshold level of literacy, described it in 1948 as the "ability to read and write a simple message in any language." But when Unesco began to gather worldwide statistics on illiteracy in the 1950's, it accepted whatever definition was used by each country. Some used the completion of a certain number of years of school; others accepted the person's word that he could read or write.

The concept of functional literacy, variously described, is even more complicated. How does one measure the ability to hold a job, to support self

and family, or to lead a life of dignity and pride?

Unesco's first definition of functional literacy suggests why there is not, nor can there be, any single international standard of literacy. It decided that a person was functionally literate when he could read and write enough to be effective in the activities normal for his culture or group. Obviously, a person literate in one society may not be in another. Furthermore, as nations, especially developing nations, reassess their manpower and development needs, the level of literacy required to be functional rises.

The age criteria used in collecting literacy data are also inconsistent from one country to another. And a person who is literate at one census-taking may have relapsed into illiteracy the following year because of lack of practice in using his skills. Thus, even without the problems inherent in accurately collecting and tabulating any census data, statements—especially comparative statements—about the literacy rates for given groups, nations, or regions are questionable.

To compound the difficulties, the figures that are available are not likely even to suggest the dimensions of the problem. The official figure for adult illiteracy in the United States, for instance, is 1 percent, or 1.4 million. But T. H. Bell, U.S. Commissioner for Education, pointed out to an international audience of educators of adults in January 1975 that 54.3 million Americans 16 years of age or older are not in school, have no high school diploma, and are "undereducated."

The problem in the United States was defined somewhat more precisely by a nationwide Adult Performance Level (APL) study completed in the fall of 1974 by the University of Texas at Austin. It concluded that approximately 20 percent of adults in the United States are functionally illiterate; an additional 33 percent are "marginally competent."

Thus if functional literacy were to be made the yardstick, illiteracy rates would soar—especially, perhaps, in so-called developed nations.

It is obvious, then, that like population growth, illiteracy is a worldwide problem even if its exact dimensions are not known.

The statistical data on adult literacy cited in this *Bulletin*, unless otherwise noted, are taken from Unesco materials and refer to persons aged 15 years and over with the ability to read and to write. They are based on information supplied by the countries themselves and may be somewhat optimistic. In interpreting these figures, one also needs to keep in mind the difference between the bare ability to read and write and functional literacy as exemplified in the differing figures for adult literacy and adult functional competency in the United States.

Literacy and Economic Development

Literacy is perhaps the most important single way station to social and economic development, opening for the individual the door to innovative ideas, options, and actions and releasing him from only the known and traditional.

"Obviously," wrote Gunnar Myrdal in 1968, "advances in literacy and advances in economic development are interconnected." He goes on, however, to say, "In the total absence of any intensive research on the value of literacy for development, the argument must be cast for the time being in general and common-sense terms."[1]

Actually, the connection between

literacy and development is based on a good deal more than just common sense. The correlation between literacy rates and the traditional indicators of development—industrialization, lower birth rates, higher incomes, and increased productivity and GNP—has been clearly established.

A study by the University of Bombay with Bombay textile factory workers, for instance, indicates that literate workers had both more knowledge of and belief in family planning than did illiterate workers (see Tables 1 and 2).

Adult and School-Age Illiteracy

Of all adults (15 years and up) in the world today, about one-third (34.2 percent) are illiterate according to Unesco figures (see Table 3). Most live in rural areas, and most are women.

Africa and the Arab countries have the highest illiteracy rates—only one adult in four can read and write. In Asia hardly more than half the adults are literate (see Table 4).

Although the number of illiterate adults increased from 700 million in 1950 to 783 million in 1970, the percentage declined. This has been taken to indicate a turning point in the battle with illiteracy.

By 1980, nevertheless, given the population projection of 2,823 million adults, and taking into account the effects of increased primary school enrollments and literacy programs, there will probably still be 820 million illiterate adults, or some 29 percent of the adult population. And even the most optimistic projections for the next 30 years do not see fewer than 650 million illiterates in the year 2000. The problem of primary illiteracy will continue through this century, at least; and with increased technology and industrialization, functional illiteracy will continue its dramatic growth.

Again, the correlation between population growth rate and illiteracy is clear. In Africa, with a yearly population growth of 2.6 percent, 73.7 percent of the adults in 1970 were unable to read and write. This compares to North America's yearly population growth of 1.2 percent and its 1.5 percent illiteracy. With 55 percent of the world's population and a yearly population growth of 2.1 percent, Asia's illiterates are destined to expand drastically from the present 579 million.

Latin America, despite the highest regional yearly population growth at 2.9 percent, has actually reversed the trend and had fewer adult illiterates in 1970 than in 1960. This may be because more effective educational campaigns have been mounted in Latin

Table 1. Knowledge of Family Planning Among Workers in Bombay Textile Factories by Literacy Status

Degree of Knowledge	Percent of Illiterates	Percent of Literates
None	29.70	18.12
Heard about it	59.41	50.68
Has specific knowledge	10.89	31.20

Source: Phillips, H. M., *Literacy and Development*, Unesco (Paris, 1970) p. 20.

Table 2. Approval of Family Planning Among Workers in Bombay Textile Factories by Literacy Status

Degree of Approval	Percent of Illiterates	Percent of Literates
Approves	59.40	71.81
Disapproves	15.35	12.42
Can't specify	24.26	15.42

Source: Phillips, H. M., *Literacy and Development*, Unesco (Paris, 1970) p. 20.

America than in other regions of the developing world. If the trend toward increased literacy continues, and if the correlation between literacy rates and acceptance of innovative practices is correct, then the next few years should show population growth rates declining in Latin America.

Trends in illiteracy in the school-age population, however, are not so encouraging. In many parts of the world the population is expanding at such speed that the number of illiterates is outpacing efforts to teach the school-age population to read and write. According to recent World Bank figures, the number of children aged 5 through 14 who are not in school will exceed those in school through 1985 (see Table 5 on the next page).

The magnitude of this neglected sector can be embarrassing and is therefore not always fully acknowledged in a country's official statistics. "The out-of-school group—particularly that portion of it requiring primary school equivalency education—is very much larger than the rosy impression often conveyed by official statistics on school participation (enrollment/age ratios)." [2]

The International Commission on the Development of Education, commonly referred to as the Faure Commission, said: "In 1968, only four out of ten primary-school-age children in Africa were actually in classes. In the Arab countries only half attended school. Forty-five percent of Asia's children and 25 percent in Latin America were not enrolled." [3]

All of these children who cannot be absorbed into formal schools are potential candidates for nonformal education programs of one kind or another. It is clear, too, that if population and

Table 3. World Adult Illiteracy by Year, in millions

Year	Total Adults	Literates	Illiterates	Percent Illiterate
1950	1,579	879	700	44.3
1960	1,869	1,134	735	39.3
1970	2,287	1,504	783	34.2

Source: Unesco, *Literacy 1969-1971* (Paris, 1972) p. 17.

Table 4. World Adult Illiteracy by Region, 1970, in millions

Region	Total Adults	Percent of Yearly Population Growth	Literates	Illiterates	Percent Illiterate
Africa	194	2.6	51.1	143	73.7
North America	161	1.2	158	2.5	1.5
Latin America	163	2.9	125	38.6	23.6
Asia	1,237	2.1	658	579	46.8
Europe and the USSR	521	0.9	502	18.7	3.6
Oceania	13	2.0	11.8	1.4	10.3

Sources: Unesco, *Literacy 1969-1971* (Paris, 1972) p. 22, and International Planned Parenthood Federation, *Population* (London, 1973) p. 14.

family planning information is to reach them it will have to be through some means other than formal school.

Rural-Urban Illiteracy

In broad regions of the world, illiteracy is twice as prevalent in rural areas as in urban. Some reasons are: lower income levels, fewer schools, fewer reading materials, fewer incentives, and less motivation for education. Countries with the highest rural illiteracy rates (note the exception of Thailand) tend also to have high population growth rates (see Table 6, page 10).

Status of Women

As Gwendolyn J. Acsadi of the U.N. Population Division says, "Literacy is an obvious criterion to judge the present status of women and their contribution to economic and social development. Available statistics . . . indicate, not surprisingly, that in the developing regions there are significantly more female than male illiterates." [4] Actually, in all areas of the world, developed or developing, women illiterates outnumber men.

In 1970 there were 315 million male illiterates and 468 million female. Between 1960 and 1970, while the number of illiterate men rose by 8 million, the number of illiterate women rose by 40 million. In many isolated rural communities virtually none of the women can read or write.

Male illiteracy is decreasing worldwide at a faster rate than female illiteracy (see Table 7). The male adult illiteracy rate is 28 percent (falling from 33.5 percent in 1960), but the female illiteracy rate is now 40.3 percent (from 44 percent in 1960).

The greatest disparity between male and female literacy is in the Arab States, followed by Africa (see Fig. 2).

Table 5. Projections of School Enrollments in Developing Countries, in millions

School-Age Population (5 through 14)	In School	Out of School
All developing countries:		
1970	212	269
1975	260	290
1980	300	330
1985	350	375
Developing countries with per capita incomes of US$250 or less:		
1970	141	199
1975	170	220
1980	200	245
1985	230	280

Source: World Bank, *Education* (Washington, D.C., 1974) p. 28.

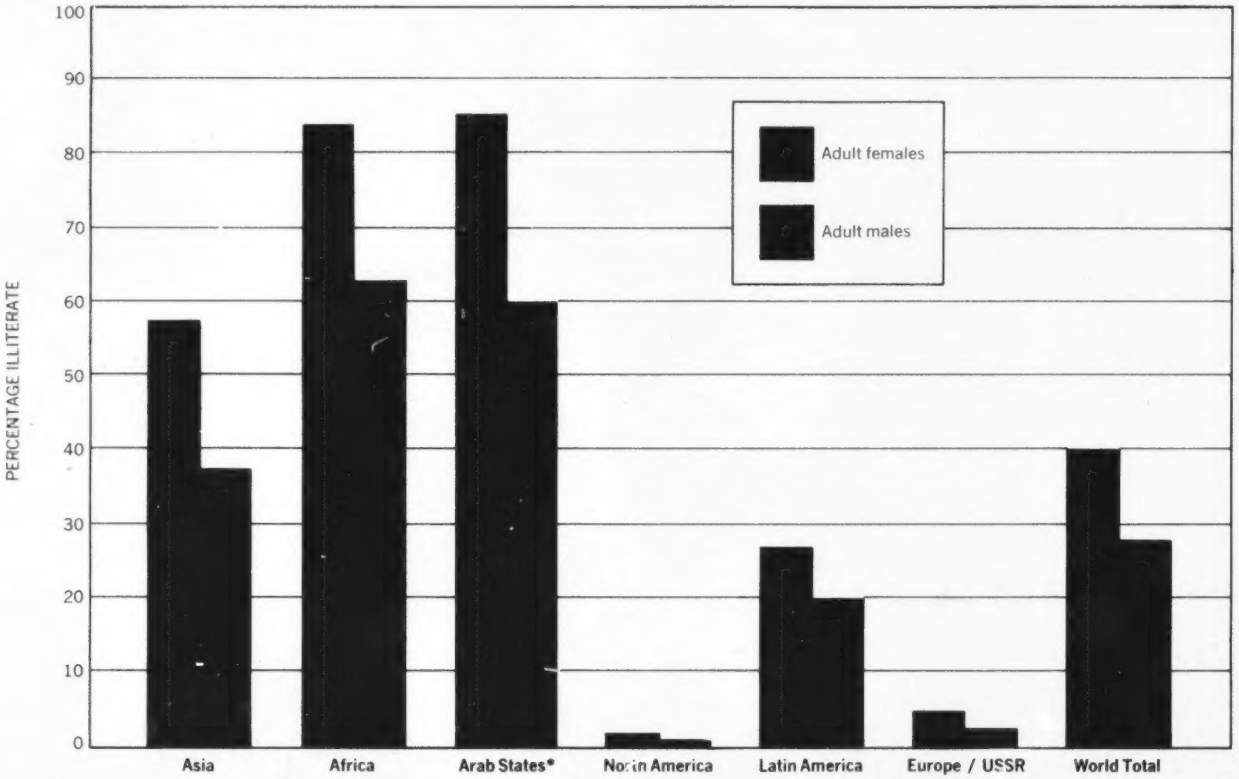
The reasons include less access to schooling for females and a generally less valued status in society.

The percentage of female enrollment in both primary and secondary school also did not markedly increase in the 10 years from 1960 to 1970, and less than 50 percent of the children in school in all regions were female (see Table 8). The disparity is greatest in countries with low GNPs where population growth rates are highest.

This sets in motion a vicious circle. High rates of population growth reduce educational opportunities for women in developing countries, and undereducated women have high fertility rates and perpetuate a situation where population growth outruns educational budgets and manpower.

Using the indicators of education, employment, and participation in the decision-making process, the United

Figure 2. **Male and Female Adult Illiteracy Rates Around 1970**



*The Arab States are presented as a separate grouping although they are also included partly under Africa and partly under Asia.

Source: Unesco, *Learning to Be*, (Paris, 1972).

Chart by World Education/John Keith

Nations Commission on the Status of Women found a strong inverse relationship between the educational level of the mother (whether acquired in formal or nonformal programs) and the size of the family. Evidence from several developing countries suggests that even a relatively low level of education helps to lower fertility.

One such study in Thailand in 1973 stated: "Rural women with 5 or more years of education bore, on the average, just over half as many children as those with no schooling. Urban women with 10 or more years of education bore less than 45 percent as many children as their counterparts with no schooling." [5]

The Operations Research Group (Baroda, India, 1971) found in a study carried out among rural adults of low literacy levels that the educational level of the wife was a more important factor in adopting family planning practices than that of the husband.

Many demographers tend to attribute lower fertility rates among better educated women primarily to later marriages. Others, however, think that increased knowledge itself may account for differential contraceptive use.

Is the woman of the Third World longing to practice contraception, and lacking only the necessary information, supplies, and clinical services? Or are there other factors that prevent her from acting? Certainly she cannot adopt family planning practices unless she learns that they exist and unless they are available to her.

A 1974 survey in Thailand confirmed that rural people, both literate and illiterate, were aware of many of the problems in their environment and were also aware of practical solutions. Some of the study team concluded that the villagers were hampered in implementing solutions—including limiting the size of their families—not by a lack of basic education but by limitations of money, services, supplies, or specific information.

In some areas, the low status of women—especially childless women—may reinforce illiterate women's high fertility rates.

Mahl, an Algerian woman sociologist writing under a pseudonym, points out that for her country, where less than

Table 6. Urban and Rural Population and Illiteracy in Selected Countries

Country	Percent of Population Growth (1973)	Urban		Rural	
		Percent of Total Population	Percent of Population Illiterate	Percent of Total Population	Percent of Population Illiterate
Chile	1.7	73	76	27	27.2
Indonesia	2.9	17	11.5	83	33.2
Korea	2.0	38	5.7	62	17.8
Thailand	3.3	15	12.3	85	22.9
Morocco	3.4	32	50.5	68	88.5
Poland	0.9	57	1.2	43	3.5
Yugoslavia	0.9	37	7.7	63	22.3

Sources: *Unesco, Statistical Yearbook, 1973* (Paris); Population Council, *Reports on Population Family Planning* (New York, 1973); Population Reference Bureau, *1973 World Population Data Sheet* (Washington, D.C.).

Table 7. World Male and Female Adult Literacy, 1960 and 1970, in millions

Year and Status	Male	Female
1960:		
Total adults:	916	953
Literate adults	609	525
Illiterate adults	307	428
Percent illiterate	33.5	44.9
1970:		
Total adults:	1,127	1,160
Literate adults	812	692
Illiterate adults	315	468
Percent illiterate	28	40.3

Source: Unesco, *World Literacy: The Statistics* (Paris, 1972) p. 6.

Table 8. Female Enrollment as a Percentage of Total Primary and Secondary School Enrollments, 1960 and 1970

Enrollments	1960	1970
Primary Schools		
Countries with per capita GNP:		
Up to $120	35	38
$121-250	42	44
$251-750	43	45
$751-1,500	48	49
Over $1,500	49	49
Secondary Schools		
Countries with per capita GNP:		
Up to $120	19	28
$121-250	27	29
$251-750	37	41
$751-1,500	45	45
Over $1,500	47	48

Source: *Unesco Statistical Yearbook, 1972.*

10 percent of women are literate, ". . . women know that they can only find their social legitimacy through their maternal role. Consequently sterility is regarded as a calamity and recognized as grounds for divorce or repudiation. How could a woman who has no personal future, no hope of survival outside the group which simultaneously oppresses and protects her, wish to have fewer children? In order to dream of another life, so different from that prescribed by tradition, one must at least be aware of its existence." [6]

Literacy, Innovation, and Modernization

Why do many people who profess a belief in the value of family planning not actually practice it when the services are available? They may, of course, have expressed approval of family planning to please or placate authorities while in reality they are fearful of breaking with traditional attitudes and actions.

A term that is often used to describe how and why an individual becomes receptive to new practices is "modernization." It can be defined as the process, not yet fully understood, by which persons begin to move from their traditional ways of life toward "a more complex, technologically advanced, and rapidly changing style of life." [7]

Several factors are analyzed by researchers to determine modernization; among them are empathy (the capacity to place oneself in the roles of others), opinion leadership, achievement motivation, political knowledge, mass media exposure, and innovativeness.

Literacy has been shown to have a positive effect on all these factors, but the correlation between literacy and innovativeness is most important. "Since messages in the print media

Table 9. Percentage of GNP Spent on Public Education, 1960 and 1965-68

World Area	1960	1965	1966	1967	1968
Total	3.02	3 75	3.83	4.08	4.24
Developed countries	3.52	4.45	4.55	4.73	4.80
Developing countries	2.73	3.35	3.42	3.72	3.91

Source: Goldstone, Leo, "A Summary Statistical Review of Education in the World," in *Education and Development Reconsidered*, The Rockefeller Foundation (Italy, 1972) p. 80.

tend largely to promote or favor change," says John Villaume, "the peasant who can read is exposed to a generally favorable attitude toward new ideas, as well as to specific technical information he may consider and adopt." [8]

Recently, Villaume has stated that a literate person is more likely to adopt innovative or modern practices than an illiterate person for the following reasons: [9]

- Literates behave differently from illiterates, and the difference is in the direction of earlier or more innovative development behavior.
- Literates are more innovative because they possess more favorable attitudes toward innovative developmental behavior, and they are more knowledgeable concerning innovative behavior.
- Literates have more positive attitudes toward innovative behavior and are more knowledgeable about it because they have greater exposure to mass media and have acquired new modes of mental activity.
- These assumptions apply when all other things are equal; that is, literacy leads to development in the hypothesized manner when the influence of other factors has been equalized, or separated out.

The implications for family planning are clear. Literacy has a positive effect on innovativeness, receptivity to change, and the other elements of modernization. When receptivity to changing behavior has been developed, *and* when services and supplies are available, people in the developing world will adopt development practices, including family planning, to a significant degree.

Financing Literacy and Family Planning Programs

Increasingly, the developing countries of the world are themselves providing the impetus for more and better educational programs as they are for family planning programs. For both, as the demand increases, more and more of the financing is expected to come from the countries themselves.

In the past decade, developing countries have rapidly increased their support of education (see Table 9) and are now spending about the same percentage of their total budget for it as industrialized nations. But because the absolute amounts are much less while the populations are larger, the per capita expenditures on education in developing countries are small. For example, although the Philippines in 1970 spent 4.6 percent of its GNP on education compared to 4.2 percent for the Federal Republic of Germany, Germany's per capita funding of education was US$149 while that of the Philippines was only US$6.30.

"Governments of the developing nations likewise vary considerably in the

amounts budgeted for family planning programs, both on a per capita basis and as a percentage of the total national budget," observes Bernard Berelson, of The Population Council.[10] "Turkey spends about US$0.05 and Ghana $0.07 per capita annually, compared to $0.14 in Thailand, $0.17 in South Korea, $0.35 in Iran, and over $1 in Mauritius. Most countries spend only small fractions of 1 percent of their overall national budgets on family planning programs. Only Mauritius and India spend more than 1 percent on family planning, and India is striking with almost 4 percent of the total national budget in fiscal year 1972 allocated to family planning efforts."

The apparent difference in level of support for education and family planning may be connected to methods of budgeting. Family planning programs are sometimes considered part of a nation's community development or health budget, but often—although the money allocated may be small—they are budgeted individually from other categories. Literacy programs, on the other hand, are almost invariably considered part of the overall education budget, which includes formal education for children and youths as well as both formal and nonformal education projects for adults.

Unesco reports that in 1971 only four countries, including only one developing nation, were spending more than 3 percent of their education budgets on programs of adult education, including literacy.

In general, although developing countries view illiteracy as a contributing factor to the maintenance of poverty, adult education and literacy programs receive only about 1 percent of total education expenditures.

Developing nations have hard decisions to make when it comes to determining budget priorities. Support for family planning and educational programs may vary drastically from country to country, but they all face the common reality that as time goes on more and more of the funding for these programs will probably have to come from the countries themselves.

Difficulties Encountered by Literacy Programs

A number of factors combine to confound the efforts of development planners and literacy workers. The report of the workshop Functional Literacy and Family Planning in Indonesia in 1973 summed up a few of them: ". . . shortage of funds, unfavorable geographic conditions, the variety and diversity of languages, lack of motivation on the part of learners, low teaching proficiency of literacy instructors, and dropouts from classes."[11]

Additional problems may be high absenteeism from schools, minimal teacher training and teaching materials, and relapse into illiteracy through lack of follow-up reading materials. In some areas, migration patterns impose literacy problems in two or more languages.

Dr. Camillo Bonanni, Unesco specialist on literacy, details still other problems faced by literacy workers:[12]

The linguistic factor. Millions of illiterates are members of communities which do not utilize written languages; each small cultural and ethnic microcosm has its own language. . . . The problem is not purely linguistic, but often political, religious, historical, cultural, and always emotional and irrational. . . . Some people even go so far as to reject the idea of writing their spoken language, preferring to establish a foreign language as a national language, reducing their mother tongue to the role of a vernacular second language.

Thus, a permanent dilemma confronts those responsible for literacy campaigns: to teach the minority group how to write their rich spoken language, respecting their logical patterns and their oral lexical patrimony, thereby giving them a written code

Figure 3. ***World Population Growth and Illiteracy Patterns***

Sources:

[1] AID/PHA/POP, *Population Program Assistance*, (Washington, D.C. 1972).

[2] World Bank, *Education*, (1974); Unesco, *Statistical Yearbook*, (Paris, 1973); World Literacy of Canada, *Learn About Literacy*, (Toronto, 1973); World Education estimates.

Chart by World Education / John Keith

that they will rarely be called upon to utilize—or to teach them a useful "lingua franca," which is not spoken by the group, and the teaching of which will create many technical and didactic complications.

Institutional factors. An adult literacy campaign, if effectively developed, may result in the starting of a new conscience in the masses—literacy could become an incentive for a social revolution. This is just what many governments, sponsoring innocuous literacy campaigns, do not want to see. . . .

Physical factors. The adult workers of the Third World, while motivated towards literacy, are not accessible. They are laborers, poor and busy. They work, in the same day, in industry and on the farm; they also organize small businesses. They have a chrononomadic professional mobility—16 hours of daily work. They are constantly engaged in some ephemeral occupation, because their life is at subsistence level, and for this reason, they fight each day for basic survival. In many cases, they are forced to leave their homelands. Often, their migrations are only seasonal—6 months here, 6 months there. . . . If they are farmers they will be totally employed and completely unavailable for any literacy activities during the most important seasonal cultivating operations, such as harvest time.

For these reasons, in a region in which, statistically, one should find half a million illiterates, we plan a realistic program aiming to affect only 100,000 young, active adults. Even in the best of cases we may have, at a maximum, only a few thousand in the classes. After 20 years of working in the field of adult literacy, I have concluded that the maximum time that an average adult illiterate can dedicate to a literacy class is approximately 200 hours per year.

Finally, illiterates numbering in the hundreds of millions cannot be accommodated by existing educational structures or institutions, nor can sufficient teachers be trained. The sheer force of numbers is compelling new approaches to literacy training just as similar pressures have led to innovations in family planning programs, and some of these are outlined in the following section.

Some Approaches To Literacy

Historically, nations have relied on formal schooling as their bulwark against illiteracy. But with population growth outstripping school capacity, the ranks of illiterates have continued to swell. They now include millions who have never had access to schooling and other millions who have dropped out prematurely and lost their meager skills. Apart from qualitative considerations, the problem faced by most developing countries is how to cope with this enormous and growing group using the limited funds available (see Fig. 3).

Increasingly, Third World nations are learning that solutions to their problems, whether of population growth or of poverty and mass illiteracy, are more likely to come from within than from without.

Evidence of this increasing conviction, especially in the field of literacy, is provided by the International Institute for Adult Literacy Methods, Teheran, which lists 790 organizations in 123 countries with libraries, information centers, or literacy projects. In addition, the *World Directory of Literacy Organizations*, issued by the Literacy International Committee, identifies 385 literacy organizations in 105 countries. Although several of these were founded before 1962, the large majority were established in the last decade.

Encouragement for these efforts has come from several sources. One is the World Bank, which in late 1974 released a policy statement that it would spend US$1 billion in the next 5 years to teach basic literacy skills to rural

populations in developing nations. Another is Unesco, which is sponsoring the Asian Program of Educational Innovation for Development.

Facilitating Literacy Acquisition

Since adult illiterates are generally underconfident of learning to read, educators over the years have tried to find shortcuts to literacy. Dr. Frank Laubach, for example, designed a simplified phonetic system of letter-picture association that has since been adapted in 103 countries and 300 languages. Over 60 million persons have used the Laubach method over the last three decades.[13]

Another part of Dr. Laubach's contribution is a chain method of using volunteers and adult learners on an "each-one-teach-one" basis whereby every literate person is urged to teach an illiterate.[14] This avoids the prohibitive expense of paid teachers, provides the manpower for a tutorial approach, creates an atmosphere of mutual learning and cooperation in solving a common problem, links the illiterate and literate environments, and provides a vehicle for establishing essential community support of literacy. Since volunteer teachers may be persons who are barely literate themselves, simple teaching guides have been prepared.

The Laubach method has now broadened to include community mobilization and training of volunteers and the involvement of students in program decision making.

Economic Focus

Unesco's work-oriented, functional literacy program was, until recently, closely linked to selected high-priority economic development programs. One of its central aims was to assist individuals and groups to adapt to new technological demands and production norms by adopting new methods and techniques needed for improved cultivation, marketing, or industrial output.

For example, Unesco has been involved in major work-oriented functional literacy projects in 12 countries: Afghanistan, Algeria, Ecuador, Ethiopia, India, Iran, Mali, Nigeria, Sudan, Syria, Tanzania, and Venezuela. In 1971 some 8,000 literacy teachers had been specially trained and 400,000 adults were directly involved in functional literacy sessions.

The basic strategy consisted of choosing high-priority industrial or agricultural projects, selecting and focusing on those economic or technological processes in which illiterate and semiskilled workers were at the greatest disadvantage, and selecting individuals who could derive the greatest benefit from work-oriented literacy. Further, an effort was made to tailor each program to the particular environment, to the specific nature of each situation and each problem, and to the needs of specific groups and individuals.

Programs tried to include socio-economic orientations, mental, analytical, and computational processes as well as literacy skills. The hope was to dovetail these components so as to make literacy meaningful in the occupational context and also to encourage independent thinking and communication through understanding the environment as a whole.

These Unesco Experimental World Literacy Programs, while achieving many positive results, also experienced some difficulties. According to Alfred Haemmerli, an evaluation specialist formerly in the Literacy Division of Unesco, "The main problem . . . was the considerable dropout of learners . . . between 40 percent and 65 percent over a total program (depending on whether the indicator included per-

sons who joined the courses in progress)." [15]

Yet, Haemmerli agrees with the Faure Commission that "The functional literacy campaign has many innovative aspects and has produced positive results, and therefore deserves to be considered as a very constructive contribution to the reform of educational systems." [16]

Literacy Campaigns and Mass Education

Developing countries have traditionally pursued two parallel strategies against illiteracy; expansion of the primary school system and mass campaigns to eradicate adult illiteracy. Recently, certain developed countries, such as Canada and the United States, have instituted crash programs to bring basic education to undereducated youths and adults.

In the United States, the Adult Basic Education Act of 1962 was formulated "to assist the States in providing necessary instruction for adults not proficient in basic educational skills in order to achieve the higher levels of education demanded by industry, agriculture, commerce, and national preparedness." As a second phase, the "Right to Read" program was launched with the aim of ending adult illiteracy in the United States by 1980.

Other countries which have tried the mass literacy campaign approach in the past are the USSR, Cuba, and the People's Republic of China. Burma, Cameroon, Chile, and Zambia are running mass campaigns at present.

While results in some countries have been good, in others they have been disappointing.

An example is Indonesia, where two major literacy campaigns were launched between 1950 and 1964. At the start of the first campaign, adult illiterates numbered 40 million and constituted 50 percent of the country's population. By 1959 the rate of adult illiteracy was still as high as 44 percent. The second campaign began in 1960, and over 37 million adults were said to have been made "literate."

However, in 1967 some 33 million adults (about 30 percent of Indonesia's total population of 110 million in that year) were still unable to read and write, and by 1971 it was acknowledged that the standard of literacy for the stated figures had been low. Further, the rate of relapse into illiteracy had proved steep, and was aggravated by many early dropouts from campaigns. The campaigns also left unaffected a new generation of illiterates who had never attended school.

In the face of these results, Indonesia has adopted a new policy in which literacy programs are integrated to local community development schemes.

In 1973, Jamaica set the goal of making 400,000 adults literate over a 4-year period to wipe out illiteracy. The Jamaica National Literacy Board divided the country into six zones, 53 subzones, and 4,000 districts and undertook the training of some 40,000 volunteer teachers. However, the complexity of the task for mass teacher training, materials development, and field organization has made it necessary for the Government to adjust its campaign targets and time frame.

An even more ambitious plan was drawn up by the Government of Bangladesh soon after its emergence as an independent country. With a population at the time of 83.4 million and an illiteracy rate of 78 percent, the goal was to make 46 million adults literate in 10 years. Targets for the campaign included setting up 15,630 classes during the first year alone, and training 153,000 teachers within the first 4 years. Six months later this unwieldy plan had to be sharply altered.

Table 10. Number of Radios in Selected Regions, 1950 and 1970, in millions

Region	1950	1970	People Per Radio in 1970
Spanish-speaking Central America and the Caribbean	2.7	10.5	6.3
Spanish-speaking South America	4.6	17.7	7.6
English-speaking Central America, South America, and the Caribbean	0.05	0.8	5.4
Near East and South Asia	1.4	17.2	40.3
Far East, including China	10.7	48.8	22.2

Source: Levin, Harry L. and Gillespie, Robert W., *The Use of Radio in Family Planning*, World Neighbors (Oklahoma City: 1971) pp. 155-156.

Burma, on the other hand, has had a significant measure of success by using a modified approach to mass literacy campaigns. Instead of launching a country-wide drive, Burma works on a district-by-district basis. Its campaign began in 1969 in one pilot district, Meiklila, where, within 2 years, 90 percent of the adult illiterates had learned to read and write. Literacy activities are supported through intensive public information via radio, press, and cinema until whole villages become literate.

At present, however, the trend seems to be to deemphasize the literacy campaign per se and to look for other solutions—particularly to ensure the quality of educational opportunities for rural and marginal urban populations.

Use of Mass Media

In a number of countries the mass media are being used to combat both illiteracy and high fertility; some of the programs are combined.

Radio programs in support of literacy efforts seem to have increased steadily over the last 10 years—perhaps because of the dramatic increase in the number of radios (see Table 10).

In the middle sixties, according to Unesco studies, only 10 developing countries were using either radio or television in combating illiteracy; by 1969 the number using radio had increased to 23, while 12 countries (with some overlap) reported using television for this purpose. About the same number use radio and other mass media for family planning and population programs.

Some 14 Latin American countries have experimented with literacy education by radio through organized listening groups. ACPO (Accion Cultural Popular) in Colombia pioneered in this field and now has a network of transmitters and a publishing program that reaches some 20,000 listening groups. Within the last year, ACPO has added a "responsible parenthood" emphasis in its programming and educational materials.

In 1971, 20 African countries were using radio or television for mass education, and radio clubs and listening groups play an important role in Ghana, Togo, Nigeria, Senegal, and the People's Republic of the Congo. Egypt conducts a steady 6-day-a-week literacy campaign by radio reaching more than a million illiterates. Some countries, Jamaica for instance, have begun experimentation with closed circuit radio and television for literacy teaching.

The content of many radio educational broadcasts for rural adults, however, is not focused strictly on literacy. The radio farm forums of India and Ghana, for example, are concerned with problems of health, agriculture, cooperatives, community councils, and family planning. (One important outcome of the use of mass media in family planning campaigns is that some of the taboos and embarrassment attached to the subject have been minimized through repeated exposure to the message.)

Some proponents of mass media for literacy education consider it a means of potential breakthrough to wipe out illiteracy. The costs of developing, perfecting, and generating this methodology are recognized; but in proportion to the numbers that can be reached, these costs are not considered exorbitant.

Other reasons advanced in favor of radio programs are the penetration of the transistor into rural areas, the possibility of cumulative action day after day, and the simplicity of arrangements at the listening-group end.

On the other hand, care must be taken that the people who most need help (for example, in remote rural areas) actually benefit. In many instances, mass media programs have been found to be of most use to those at higher income levels who are most able to comprehend unfamiliar concepts and have the best chance of using them.

To cure this problem, many projects are exploring ways of getting feedback and of involving listeners in program evaluation and development. This is an excellent trend to maximize the educational impact of the media.

Nonliteracy-Based Education

In many developing regions, speech has been the principal vehicle for communicating knowledge, experience, and creative thought. Without minimizing the usefulness of literacy as an aid to man's independence and capacity to cope, the dependence on literacy as the chief key to knowledge is being questioned.

Proponents of nonliteracy-based education are now studying the applicability to adult education of such "contact" techniques as demonstrations, games, role-playing, puppetry, and other forms of traditional and folk oral art. At the same time, visuals, films, theater, tapes, and other media can simulate the immediacy of direct contact and be used effectively in nonliteracy educational programs to bring new ideas to large numbers of people.

The possibilities of nonliteracy-based education have important implications for family planning. For if literacy is not necessarily a precondition for the acquisition of new knowledge and skills and the opening up of the human mind to new solutions, then perhaps family planning education can be brought more quickly to the vast masses of adult and young adult illiterates who need to make decisions on family size. The cost feasibility and effectiveness of nonliteracy-based educational approaches, however, yet remain to be evaluated.

Sociopolitical Emancipation

Starting from a totally different standpoint from either Unesco or Laubach, Paulo Freire of Brazil has developed a literacy system claimed capable of making illiterate rural adults literate within 6 to 8 weeks.[17]

Freire's aim, however, is not to teach adults reading and writing in the shortest possible time, but to "liberate" them. The key concept in the Freire method is "conscientizacão," or the awakening of man's positive self-awareness in relation to others and to

his environment. Adult illiterates must develop the ability to perceive themselves as active agents of change and not as objects.

Freire calls traditional education the "banking" system where the teacher's role is to withdraw selected concepts from the bank of knowledge and simply deposit them in the heads of adult learners.

In contrast, Freire emphasizes reflective thinking to help the peasant break away from traditional fatalism and feelings of powerlessness. He then introduces the concept of praxis (reflection / action / reflection) as man's real function. Translated, this means that man is not an object to be manipulated but is active and creative and has the capacity to examine critically, interact with, and transform his world.

Accordingly, an important principle in the literacy part of the Freire method is the selection of the vocabulary "most charged with existential meaning" for the people. Reflection on generative themes, for example, leads to reflection on the associated emotion-charged words. Both themes and words are drawn from the everyday life of the learners. Then the group analyzes the syllabic structure of the selected words and also discovers that syllables can be recombined to form new words.

The Freire method has had, and continues to have, a wide influence on adult education in Latin America as well as in other parts of the world. Further, his system could, obviously, have much effect on practices in family planning information and education.

Functional Education: An Integrated Approach

Functional education as interpreted by World Education and a number of other agencies—and the FAO's Planning for Better Family Living programs—is a many-faceted but integrated approach to improving the quality of life through self-awareness and the involvement of adults in the analysis and solution of everyday problems.

In functional education, literacy is related to the daily necessities of life —health, nutrition, earning a living, family planning, food production—and to any other matters learners themselves consider as priorities. The curriculum is thus flexible, integrated, and situation specific.

The methodology, too, is integrated and weaves together a number of innovative and effective nonformal approaches to the adult learner. It draws on the experience of Unesco, Literacy House in India, Freire, nonliteracy methods, and is based on a number of assumptions about the process of adult education.

The first is that although each adult decides for himself whether or not to adopt a new behavior, the educational process can facilitate a decision through the environment set by the educator and through interaction with a learning group. The educator, who may be someone other than a traditional teacher, often helps plan and assess appropriate sequences of learning experiences and fosters conditions under which the student wants to learn.

The learning group provides shared experiences, stimulation in raising and answering questions, and the possibility of social approval of new behavior that would not be adopted by a large audience without widespread sanction. Interaction with a group provides a laboratory for the individual to test his ideas and to gain confidence in breaking new ground.

In adapting these ideas to field situations, World Education has experimented with a range of techniques. Some call for direct problem-solving skills while others use projective techniques, such as open-ended problem

dramas, to uncover the values, taboos, superstitions, doubts, and suspicions underlying resistance to change. These are especially suited for discussion of family planning issues.

The manner of integrating family planning with other develop-directed content in these programs also varies with each situation. But a basic principle (first stressed in the functional literacy and family-life planning program in Thailand, and adopted in most World Education programs) is to divide problems into manageable segments that adult learners can analyze and to which practical solutions can be quickly offered.

Family planning and population education concepts are interwoven into the program—not as concepts to be adopted by prescription but as issues to be reflected on and discussed so that action can have its basis in conviction. In applying its approach to the particular needs of family planning, World Education sees functional adult education as the process of assisting individuals to acquire attitudes, concepts, and skills essential to problem solving. This problem-solving process includes: recognizing that family size is critical, relevant, and controllable; examining feasible options for limiting family size, and selecting a method among the various ones available for doing so; assessing the consequences of adopting birth control practices on sex life, old age security, and prestige in the community; considering religious and moral scruples; and assessing benefits to spouse and children.

A final decision must be made based on the resultant understanding—not on myth or prejudice—and must take into consideration the possible negative results, such as failure of the contraceptive method used or side effects. Misunderstanding of these possible consequences will only result in new myths and rumors that will discourage both those who have adopted family planning methods and others in the community.

Summing Up

"For millions of young adults in hard-to-reach rural areas where the bulk of the world's illiterates are located, the family planning message is of crucial importance." [18] Many family planning and education programs, however, do not reach the audience for which they are intended.

Lack of funds is also a serious problem. Only about $800 million goes to family planning programs in the developing world.

Further, traditional methods of disseminating information on family planning have not always succeeded with rural or undereducated peoples. For example, the family planning clinic on the Western model has reached only a small fraction of rural people and even in many urban and semiurban areas has had insufficient drawing power. In India and elsewhere, government and private family planning clinics supervised by physicians often failed to gain large numbers of clients or much interest until other related services were provided.

Implications for Family Planning Education

Because illiteracy and large families seem to go together, it seems sensible to seek solutions to both problems simultaneously and integrally.

Illiteracy is considered to be, in itself, a critical barrier to communication. Rural people whose common bonds are illiteracy and poverty also tend to have their decisions controlled by community mores and taboos. The literate person, on the other hand, has direct access to knowledge, motivations, and reasoning beyond the closed

circle of kinship groups or community and is therefore more likely to be responsive to change. The mastery of literacy skills is also seen as an important step towards the use of symbols needed for abstract thinking and long-range planning.

Creating a "felt need" for family planning among literacy learners may or may not be among the objectives of functional literacy programs. But if modernization occurs, and all indications are that it will occur, then a demand for family planning will be—in the language of educational evaluation—an "unintended but anticipated" outcome.

Many experienced educators emphasize what they see as a critical relationship between the processes of adult education and adoption of innovative behavior. Since taking action on limiting family size is "innovative behavior," educators contend that rural and illiterate people are more likely to make rational and permanent decisions about family size if they have participated in the problem-solving process that is integral to functional education.

Some ask whether family planning education programs, or indeed any developmental education, need be directly linked with literacy teaching. They contend that here, as in all key areas of rural development, the crisis situation demands optimal use of existing channels of communication rather than waiting upon literacy—particularly in countries with a long tradition of oral and pictorial communication. They therefore look to nonliteracy methods of education for solutions to the problem.

Those who prefer to carry out developmental education through nonliteracy options—although their effectiveness has not yet been adequately tested—are perhaps not sufficiently aware of the new trends in nonformal education, in particular the humanizing, consciousness-raising, critical thinking, or participant-involving methods that are becoming so strong an element in nonformal education for development.

In the next several decades, as many young people (5 to 15 years old) will be out of school as in (see Fig. 4 on page 25), and nonformal education programs should proliferate to meet their educational needs. Family planners could coordinate with these programs. At the same time, specialists in adult education should move out of their small, experimental projects and somehow, and quickly, utilize all that they have learned about approaches to adult learning, about motivation, and about receptivity to change.

Agreements and Realities

While there is by no means total consensus, increasing numbers of adult educators, population planners, policy makers, and politicians—in both the developed and the developing worlds—seem to be coming closer to agreement that: [19]

- The problems of illiteracy and overpopulation can be dealt with more effectively in the wider context of development than as isolated phenomena.
- Adoption of "modernizing" practices, including family planning, is usually accompanied by, and may in part be the result of, a rise in educational standards.
- Illiteracy is one of the inhibitors in the process of the diffusion of innovations and a brake on the pace of social, political, and economic change.
- The status of women and women's educational levels are directly related to family size; and as women become more fully involved in the development process, efforts to cope with illiteracy and population growth will be enhanced.

• There is no shortcut nor cheap way of producing a literate society, just as there is no shortcut nor cheap way to achieve and carry out national population policies. Both involve a massive buildup of resources and facilities, formal and informal education, professional and vocational training, production and distribution of learning materials and other commodities, development of rural libraries, newspapers, health services, and mass media.

• Both adult education (including functional literacy) and population policy, as mutually supportive components of national development, belong in comprehensive development plans. They require parallel and interlocking action by development agencies of agriculture, health and nutrition, rural development, and community life and by cooperatives.

A Case Study: Thailand

In 1970 the Royal Thai Cabinet, aware of the implications of unchecked population growth, announced: "It is the policy of the Thai Government to support voluntary family planning in order to help resolve various problems related to the very high rate of population growth, which constitutes an important obstacle to the economic and social development of Thailand." [20]

National Population Project

Following this proclamation, a national family planning project was created within the Ministry of Public Health, and an Inter-Ministry Coordinating Committee was chaired by the Minister of Public Health. Since 1971, family planning with maternal and child health has been placed high in the country's list of priorities.

The objective of this national project is to reduce the population growth rate from over 3.3 percent in 1970 to 2.5 percent by the end of 1976. To this end, the Government is committed to inform and motivate eligible women to accept family planning concepts and to make services readily available throughout the country.

The national campaign uses radio, television, and cinema advertising. It sends printed materials through health channels, and reaches villages through posters and pamphlets.

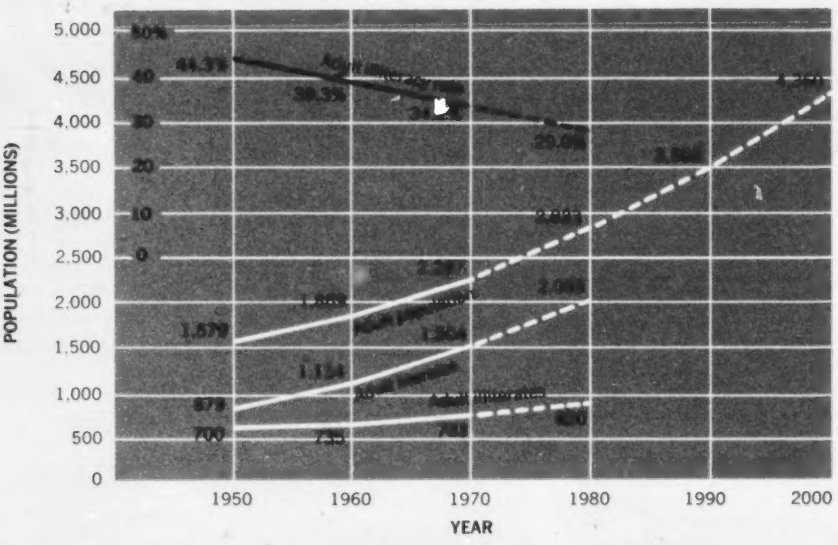
Literacy Trends in Thailand

A family planning program, however, requires a literate population to be effective. Two factors decrease the overall literacy levels of the country. First, while 46 percent of the total population is under 15 years, only 70 percent of them are in school although education is compulsory. Actually, a smaller proportion (53 percent) of children aged 7-18 are in school now than in 1960 (56 percent). Classroom facilities have not been able to keep pace with the growing population. Second, even children who have completed fourth grade often relapse into illiteracy after being away from a formal school situation for a number of years.

Thailand has committed itself to reaching the goal of 7 years of compulsory education for all children by 1990.

At the same time, the Government's commitment to adult education has grown, and the number of students attracted to these programs has vastly increased from about 250,000 in 1960 to over 900,000 in 1972. Increased commitment to adult education is also reflected in increased budget. In 1975 the Government plans to allocate to the Adult Education Division, Ministry of Education, about US$56.5 million

Figure 4. ***World Adult Population (15+) and Literacy Rates with Projections***



Source: Unesco, *Learning to Be* (Paris, 1972), pp. 298-299. Chart by World Education / John Keith

The situation can be seen at a glance: population soaring with the number of literates nearly keeping pace, resulting in a small but steady rise in the number of illiterates. The reader can easily imagine the continuation of the lines up to the year 2000 and even the most optimistic of assumptions is not going to drop the number of illiterates below the 650 million mark by the year 2000. On the other hand the illiteracy rate is falling steadily, practically in a straight line, and the most optimistic assumption about the number of illiterates by the year 2000—some 650 million—would mean an adult illiteracy rate of 15 percent.

It is possible to make only a most speculative estimate about the regional position in 1980. At the present rate of educational progress, and taking into account the ageing of the population, the African adult illiteracy rate should fall from 74 to 67 per cent; the Asian adult illiteracy rate from 47 to 38 per cent; and the Latin American adult illiteracy rate from 24 to 15 per cent. It is to be expected that the rate of progress will be greater in the seventies than the sixties, just as it was somewhat greater in the sixties than the fifties because of the ageing of the population. The over-all estimate of 820 million adult illiterates in 1980, giving an adult illiteracy rate of 29 per cent, has been made on this assumption. However it should be remembered that these estimates in 1980 still mean that both in Africa and in Asia there will be over 25 million extra adult illiterates by 1980.

and in 1976 about US$76 million.[21] This does not include nonformal educational activities conducted by other organizations outside the Ministry of Education.

The Functional Literacy and Family Life Planning Project

Early adult literacy programs aimed at the rural population failed; participants were not motivated enough to attend classes. Beginning in 1968, work-oriented functional literacy programs were initiated. Although more successful than previous efforts, teachers were called upon to understand and teach technical matters beyond their training. Also, in order to master the occupational content, a level of reading skills was required that students seldom possessed. In frustration, many participants abandoned this program prematurely.

In 1970, the Adult Education Division completely revised its functional literacy program and the philosophy on which it was based. It began an experimental pilot project in functional literacy and family life planning.

A philosophy was formulated that would be understood and accepted by the majority of the Thai people and that would also delineate clearly the role and responsibility of educational programs. Rooted in Buddhist belief, this philosophy assumes that the ultimate goal in life for man is to live in harmony with his environment. Man will strive until he reaches this equilibrium—which may entail changing his environment or making adjustments within himself. The role of education, then, is to assist man in his search for harmony.

A process known as "khit-pen" was identified as the tool for harmony. According to Dr. Kowit Vorapipatana, head of the Adult Education Division, "a man who has mastered the process of khit-pen will be able to approach the problems in his daily life systematically; examine the causes of his problems; gather the wide range of information and alternative courses of actions; and then weigh the merit of each alternative, based on his own values, his own capabilities; his personal situation, and the degree of feasibility of each solution." [22] The concept trusts learners to make wise decisions on family planning and other aspects of their lives if they understand the options open to them.

If, due to outside circumstances or lack of necessary knowledge or skills, the solutions of first choice cannot be implemented right away, a khit-pen man will not become frustrated. Instead, he will adopt a lesser solution while preparing ways to make the solution of his choice possible. This can range from acquiring certain specific skills or knowledge to creating necessary conditions in the environment.

In designing the original curriculum, teams of educators conducted surveys in five villages to determine the interests, activities, and vocabulary of potential participants. Initial literacy levels were established through objective tests. Then the curriculum was built around a core of 73 concepts bearing on common village problems and including family life planning.

The detailed syllabus is based on the survey findings, the experience of educators and extension workers, and on the national plans of the Ministries of Agriculture, Health, and Economic Affairs. Each lesson unit conveys a specific functional skill or piece of information. An early lesson, for example, shows how planting beans improves the soil because bean roots return needed nutrients to the soil. Another lesson considers the value of a couple discussing and planning the size of their future family before marriage.

Table 11. Expansion Plan of Thailand's Functional Literacy and Family Life Planning Project

Year	Number of Educational Regions	Provinces	Classes	Students
1971	1	2	20	427
1972	2	12	102	2,120
1973	4	32	280	5,600
1974	6	44	400	8,000
1975*	8	51	600	12,000
1976*	10	60	800	16,000
1977*	12	71	900	19,000

*Projected figures.

Source: Thailand Ministry of Education, *Population Education in Thailand* (Bangkok, 1975) p. 72.

Teaching techniques stress methods of involving the adult learner. Each class begins with a discussion of a problem depicted in an illustration or photograph, and students are encouraged to express their own ideas and speak about their own experiences. The teacher's manual offers suggestions that help the teacher get participants more deeply involved in the discussion.

Evaluation and feedback from the pilot project showed that teacher morale had remained high; that the learner dropout rate had been reduced dramatically (12.6 percent, from a level of nearly 50 percent in previous programs); and that the approach showed strong potential for leading to significant positive attitude change.

The Government has steadily increased its financial commitments to the project and its expansion and has strengthened the institutional infrastructure which supports it. The Functional Literacy and Family Life Planning Project is currently underway in eight of Thailand's 12 educational regions. It has been projected that the program will cover the whole country by 1977 (see Table 11).

Coordinating Literacy and Population Projects

Early interest in population studies in Thailand came from demographers and family planners. Educators did not begin to take any significant role in the government's efforts to combat population growth until after 1970.

The Adult Education Division's Functional Literacy and Family Life Planning Project was the first active education program with population components. Since the program's aim is to help the learner develop the process of khit-pen and be able to apply it to all problems in his daily life, the concept-oriented curriculum that emerged deals with four aspects of human conditions: earning a living, health and family planning, family financing and budgeting, and citizenship and civic responsibility.

A 1969 national survey of rural Thai women showed that most actually understood the problems of overpopulation and that the great majority of those interviewed believed four children or fewer would be desirable. A 1974 survey conducted by the Adult Education Division substantiates these

findings. Of those interviewed for the 1974 survey, a few cited advantages of large families, such as additional labor and security for old age, but most respondents noted that large families are more of an economic liability than an asset.

In Thailand, as in other countries, the proportion of women who no longer want any additional children increases rapidly with the number of living children they already have. Almost all married women who have no living children want some. The majority of those who have three or four living children, however, wish to stop their childbearing; and practically all women with seven or more children no longer wish to add to their family.

Despite these findings, the proportion of women who practice contraception and hence can avoid conceiving an unwanted child is very low regardless of the number of children they already have. This suggests that appropriate means of contraception may not be known or accessible to large numbers of Thai women who would like to limit (or space) the future number of children they will have.

There also appear to be important knowledge gaps. The 1974 survey found that village adults still require detailed information on contraception and side effects, maternal health, and procedures to obtain family planning and related medical advice.

The Functional Literacy and Family Life Planning Project is again being revised in an attempt to satisfy some of the knowledge gaps the 1974 survey identified and has moved out of its pilot stage to become a nationwide program. The Adult Education Division is also working on expanding and revising its continuing education and vocational education projects to fill the newly identified needs of the people.

Footnotes

1. Harman, David, *Community Fundamental Education*, Washington, D.C., Heath and Co. (Massachusetts, 1974) p. 5.
2. Coombs, Philip H., with Prosser, Roy C., and Ahmed, Manzoor, *New Paths to Learning for Rural Children and Youth*, International Council for Educational Development (New York, 1973) p. 27.
3. Faure, Edgar, *et al.*, *Learning To Be*, Unesco-Harrap (Paris, 1972) p. 54.
4. Acsadi, Gwendolyn Johnson, *Family Planning: Improving Opportunities for Women*, The Victor-Bostrom Fund for the International Planned Parenthood Federation Report No. 18 (Washington, D.C., 1974).
5. Knodel, John, and Prachuabmah, Visid, *The Fertility of Thai Women*, Institute of Population Studies, Chulalongkorn University (Bangkok, 1973) p. 55.
6. International Planned Parenthood Federation, London, *People*, Vol. 2, No. 1, p. 6.
7. Rogers, Everett M., with Svenning, Lynne, *Modernization Among Peasants, The Impact of Communication*, Holt, Rinehart and Winston, Inc. (New York, 1969) p. 14.
8. Villaume, John M., "Theory-Informed Middle-Range Evaluation of Literacy Programs," in *Literacy Discussion*, Vol. 5, No. 3, p. 45.
9. *Ibid.*, p. 70.
10. Berelson, Bernard, "World Population: Status Report 1974," *Reports on Population/Family Planning*, No. 15, The Population Council (New York, 1974) pp. 40-41.

11. Indonesia Ministry of Education and Culture, *1973 Workshop Report*, p. 43.
12. Bonanni, Camillo, "The Autodafé of an Adult Literacy Worker," in *Convergence*, Ontario Institute for Studies in Education, Vol. 4, No. 1, pp. 23-25.
13. Laubach, Frank, *Teaching the World to Read*, Friendship Press (New York, 1947).
14. Laubach, Frank, and Laubach, Robert, *Toward World Literacy: The Each One Teach One Way*, The Syracuse University Press (Syracuse, 1960).
15. Haemmerli, Alfred, "Evaluation in the World Experimental Literacy Program," in *Literacy Discussion*, Vol. 5, No. 3, p. 347.
16. Faure, Edgar, *et al.*, *Learning To Be*, Unesco-Harrap (Paris, 1972) pp. 141-142.
17. Freire, Paulo, *Pedagogy of the Oppressed*, Herder and Herder (New York, 1970).
18. Keehn, Thomas B., *Functional Education for Family Life Planning. A Program Plan*, World Education (New York, 1971).
19. Mason, Horace, "Fundamental Education and Functional Literacy—Problems and Possibilities" in *Convergence*, Ontario Institute for Studies in Education, Vol. 6, No. 3-4, p. 57.
20. Thai Ministry of Public Health, National Education Development Board, *Population Growth in Thailand* (Bangkok, 1972).
21. Thai Ministry of Education, *Adult Education in Thailand* (Bangkok, 1972) pp. 9-10.
22. Vorapipatana, Kowit, "The 'Khit-Pen' Man," in *World Education Reports*, No. 8, Jan. 1975, pp. 1-5.

Population Reference Bureau, Inc.

The Bureau gathers, interprets, and publishes information about population trends and their economic, environmental, and social effects. Founded in 1929, it is a private, nonprofit educational organization that is supported by foundation grants, individual and corporate contributions, memberships, and subscriptions. It consults with other groups in the United States and abroad and operates an information service, a library, and an international program. Bureau publications include the *Population Bulletin*, *PRB Reports*, an annual *World Population Data Sheet*, *Interchange* (for teachers), and special reports.

Officers

Robert R. Nathan, Chairman of the Board
Robert M. Avedon, President
Gloria de Mendoza Hoyos, Director of Regional Office
Emmett J. Rice, Secretary of the Board
Caroline S. Cochran, Chairman of the Executive Committee

Trustees

Georg A. Borgstrom, Stanley A. Cain, Jacob Clayman, James R. Echols, Bert Edwards, Jane B. Hart, Philip M. Hauser, Sherman J. Maisel, Andrew C. McLellan, John A. Perkins, Esther Peterson, David O. Poindexter, James H. Scheuer, Conrad Taeuber, Lee M. Talbot, Stewart L. Udall, T. Graydon Upton, George L-P Weaver.